



Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engines and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2003	3DWXL03.3BMA	3.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter, Charge Air Cooler			Compressor, Generator Set	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NO<sub>x</sub>), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO<sub>x</sub>), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	--	7.9	--	--	--	--	--	--

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 19<sup>th</sup> day of February 2003.

Allen Lyons, Chief  
Mobile Source Operations Division

# Engine model summary form

Attachment 1 of 1

Manufacturer: Daewoo Heavy Industries & Machinery Ltd.

Engine category: Nonroad CI

EPA Engine Family: 3DWXL03.3BMA

Mfr Family Name: ~ P034TI

Process Code: New Submission

ExHA-K-019-0063

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lbs/hr)@peak torque	9. Emission Control Device Per SAE J1930
	P034TI MGA	81@ 1800	75	29.8	236@ 1800	75	29.8	DDI,TC&CAC,SPL
	P034TI MGA	74 @ 1800	68	27.0	216@ 1800	68	27.0	DDI,TC&CAC,SPL
	P034TI MGA	68 @ 1800	64	25.4	199@ 1800	64	25.4	DDI,TC&CAC,SPL
	P034TI MGA	64 @ 1500	73	24.2	225@ 1500	73	24.2	DDI,TC&CAC,SPL
	P034TI MGA	56 @ 1500	64	21.2	197@ 1500	64	21.2	DDI,TC&CAC,SPL
	P034TI MOA	81@ 1800	75	29.8	236@ 1800	75	29.8	DDI,TC&CAC,SPL
	P034TI MOA	74 @ 1800	68	27.0	216@ 1800	68	27.0	DDI,TC&CAC,SPL
	P034TI MOA	68 @ 1800	64	25.4	199@ 1800	64	25.4	DDI,TC&CAC,SPL
	P034TI MOA	64 @ 1500	73	24.2	225@ 1500	73	24.2	DDI,TC&CAC,SPL
	P034TI MOA	56 @ 1500	64	21.2	197@ 1500	64	21.2	DDI,TC&CAC,SPL